



OSPO

CLASS Access and Future Trends for S-NPP and JPSS Data

Brent Hefner, CLASS Program Manager (Acting)

Alan Hall, CLASS System Owner & Operations Manager

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Overview-

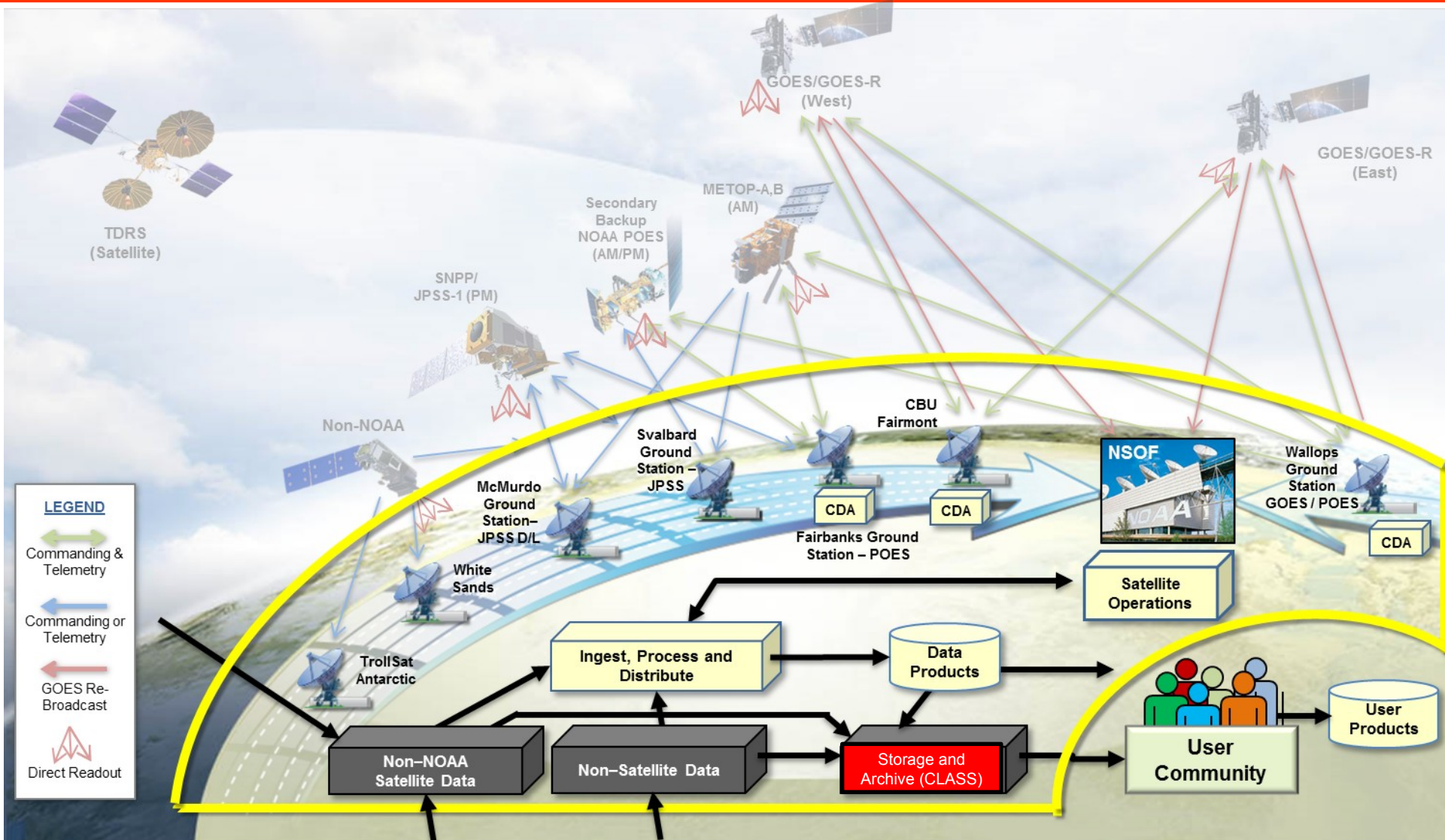
Comprehensive Large Array data Stewardship System (CLASS)



- **CLASS provides long-term, secure storage of NOAA-approved data, information, and metadata and to enable access to these holdings through both human and machine-to-machine (M2M) interfaces**
- **CLASS is not intended to support near-real-time nor mission-critical product delivery**
- **CLASS follows the concepts defined in the Open Archival Information System Reference Model (OAIS-RM)**
- **CLASS Development phase completed on June 30, 2017**
- **CLASS has transitioned to Sustainment:**
 - Minor problem resolution and enhancements are delivered through regularly scheduled Sustainment Software Releases
 - Software Releases are scheduled once per quarter

CLASS is fully operational and meeting all performance objectives

CLASS within the NESDIS Ground Enterprise





S-NPP and J1 Archive & Dissemination Metrics



- Recent Archive metrics

	May		June		July	
	No. of Files	Volume (TB)	No. of Files	Volume (TB)	No. of Files	Volume (TB)
S-NPP	965,298	40.5	775,771	40.14	805,603	41.33
NOAA-20	877,245	39.1	724,863	38.17	743,578	39.1

- July Dissemination metrics

S-NPP	July	
	No. of Files	Volume (TB)
Subscriptions	1,852,940	135.34
Ad-Hoc	1,172,499	55.4

NOAA-20	July	
	No. of Files	Volume (TB)
Subscriptions	1,047,550	91.06
Ad-Hoc	548,604	50.88



CLASS Website



- Provides access to CLASS information holdings
- Requires registration to order data
- www.class.noaa.gov
- Manage Subscription orders
- Place Ad-Hoc Orders

NOAA HOME WEATHER OCEANS FISHERIES CHARTING SATELLITES CLIMATE RESEARCH COASTS CAREERS

NOAA COMPREHENSIVE LARGE ARRAY-DATA STEWARDSHIP SYSTEM (CLASS)
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

» CLASS Home » Login » Register » Help » About CLASS » **RSS**

CLASS Help All NOAA **» SEARCH**

Please select a product to search **» GO**

Around CLASS

- » Home
- » Search for Data
- » Upload Search
- » Search Results
- » Shopping Cart
- » Order Status
- » Help

User Account

- » User Profile
- » User Preferences

Advanced Options

- » Download Keys
- » FTPS Instructions

Release Info

- » Version 8.1.2.1
July 25, 2018

Other Links

- » CLASS Home
- » NCEI
- » NESDIS
- » NOAA
- » DOC

Image source: GOES-16 and S-NPP

NEWS

Check out the new GOES-16 ABI L2 products recently released! (3/8/2018):
A number of GOES-16 ABI Level 2 products are now available to the public. All ABI products, as well as the L1B radiance data, are found under the GRABIPRD data family. For complete details on data maturity start dates and access dates please go to <https://www.ncdc.noaa.gov/data-access/satellite-data/goes-r-series-satellites>. Also, it is advised that users are aware of any of the data issues by clicking on the appropriate readme links provided. The remaining products will be released once CLASS receives the green light from the program office.

As you may know, GOES-17 was successfully launched on March 1, 2018! It will replace GOES-15, which is GOES-West, sometime this Fall. Data from GOES-17 will remain restricted until further notice.

Attention JPSS Users. Start dates of NOAA-20 products now available to the public. (4/25/2018):

- 12/08/2017 - ATMS SDR and TDR
- 01/17/2018 - CrIS SDR
- 02/01/2018 - VIIRS SDR
- 02/01/2018 - VIIRS Imagery Bands

Data sets are available back to Beta Maturity. Be sure to review the readmes for any data issues and caveats on the STAR JPSS/SNPP Algorithm Maturity Matrix website at <https://www.star.nesdis.noaa.gov/jpss/AlgorithmMaturity.php>.

For easy access to the most recent JPSS global daily tar files please go to <ftp://ftp-npp.bou.class.noaa.gov>.

SEARCH FOR DATA

- + Environmental Data from Polar-orbiting Satellites
- + Environmental Data from Geostationary Satellites
- + Defense Meteorological Satellite Program (DMSP)
- + Joint Polar Satellite System (JPSS)
- + Sea Surface Temperature data (SST)
- + RADARSAT
- + Altimetry / Sea Surface Height Data (JASON)
- + Global Navigation Satellite Systems (GNSS)
- + Other - Miscellaneous products in CLASS

SEARCH COLLECTION METADATA

» GO



CLASS Access Services



Order types	Avg Time to Available	File Limit
Subscription (Standing orders)	< 6-7 hours (As little as 45m depending on data)	No limit
NPP-FTP (Rolling ~90 days)	< 6-7 hours	No limit
Ad-Hoc (Historical/older data)	~24 hours	Up to 3,000 files
Bulk (Large/non-typical)	24-48 hours	3000 to 6000

NOTES:

Some data types are available as fast as can be processed, others are delayed by the Program (i.e. JPSS)

CLASS is a tape Library System, retrieval times can vary. Operators work with large data requests to facilitate best delivery.



Subscription Orders



- Subscriptions are standing orders for newly archived data which are fulfilled automatically
- Users can manage Subscription orders via the CLASS website




Ad-Hoc Orders




- Ad-Hoc orders can be placed through the CLASS website
- Data is grouped into product families which can be searched

Temporal

(maximum range is 366 days)

Start Date
(format: YYYY-MM-DD) 2018-08-16 

Start Time (UTC)
(format: HH:MM:SS) 00:00:00

End Date
(format: YYYY-MM-DD) 2018-08-17 

End Time (UTC)
(format: HH:MM:SS) 23:59:59

Specify the range of the times for: ☐ Each Day Or ☒ The Entire Range Of Days

☐ Advanced Search

Datatype

- ☐ VIIRS Active Fires EDR
- ☐ VIIRS Aerosol Optical Depth and Aerosol Particle Size EDRs
- ☐ VIIRS Volcanic Ash Detection and Height EDRs
- ☐ VIIRS Aerosol Detection EDR
- ☐ VIIRS Albedo (Surface) EDR
- ☐ VIIRS Cloud Height (Top and Base) EDRs

Satellite


NOAA-20
S-NPP



NPP and J1 Rolling FTP Directory

- Located at <ftp://ftp-npp.bou.class.noaa.gov/>
- Easy to navigate directory of recently archived NPP and J1 data
- ~90 day rolling window

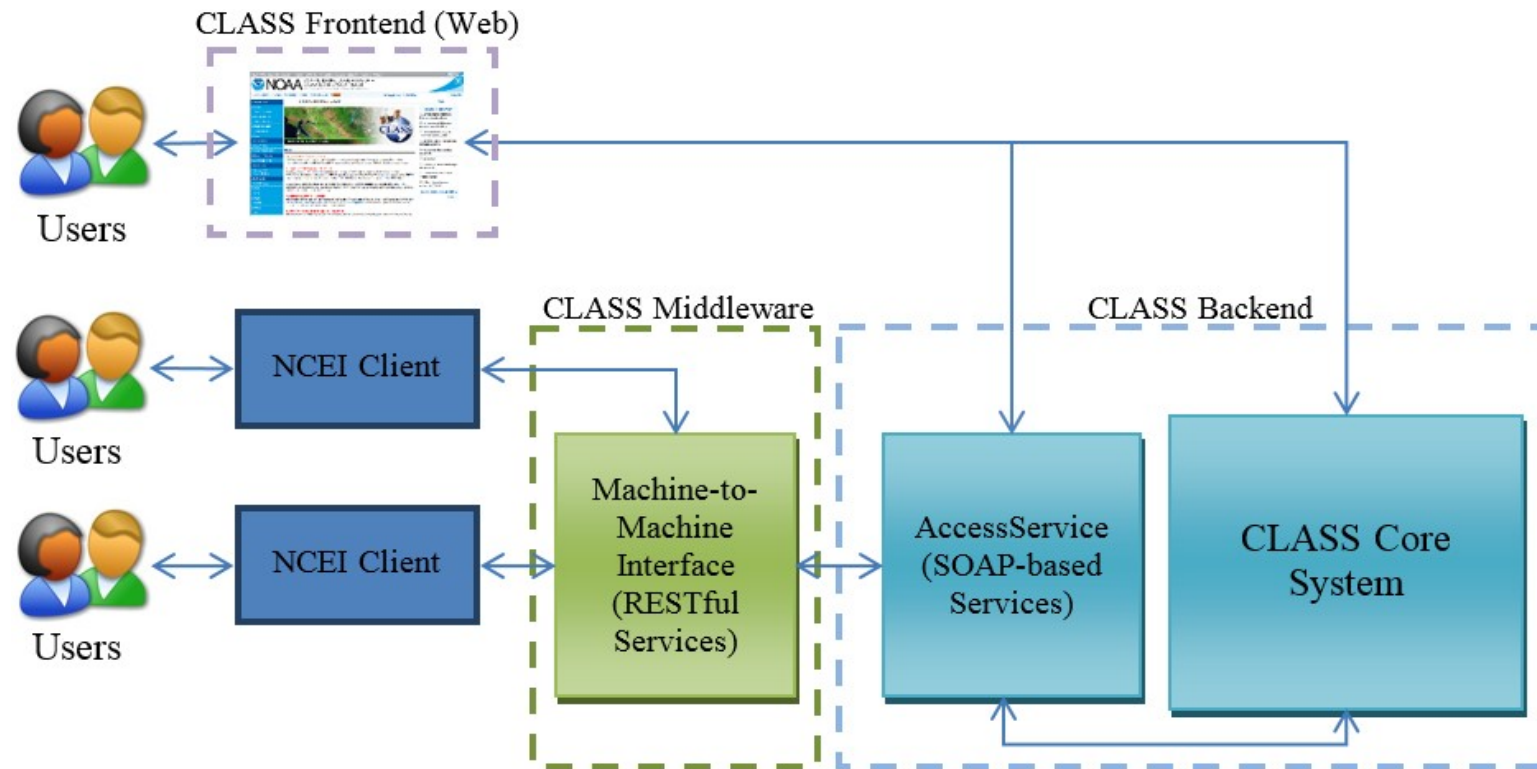
Index of /20180817/VIIRS-EDR/VIIRS-Near-Constant-Contrast-NCC-EDR-GTM-Geo/J01/

 [\[parent directory\]](#)

Name	Size	Date Modified
 VIIRS-EDR_VIIRS-Near-Constant-Contrast-NCC-EDR-GTM-Geo_20180817_28955.tar	1.9 GB	8/17/18, 2:00:00 AM
 VIIRS-EDR_VIIRS-Near-Constant-Contrast-NCC-EDR-GTM-Geo_20180817_28955.tar.manifest.xml	6.4 kB	8/17/18, 2:00:00 AM
 VIIRS-EDR_VIIRS-Near-Constant-Contrast-NCC-EDR-GTM-Geo_20180817_29335.tar	1.9 GB	8/17/18, 3:33:00 AM
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Machine to Machine (M2M) Interface

- M2M API was designed for the purpose of enabling software developers to create access clients capable of searching for and ordering datasets held within CLASS
- NCEI has implemented M2M Clients





M2M Next Steps



- CLASS is planning an Engineering Assessment to determine the feasibility of extending the M2M interface to STAR
 - Performance impact analysis
 - Cost estimate



Summary



- CLASS is the archive for NPP and J1 data
- Multiple options exist for ordering data from CLASS
- CLASS is investigating making the M2M interface available to STAR